MISSOURI DEPARTMENT OF HEALTH

& SENIOR SERVICES

OFFICE OF RURAL HEALTH

Biennial Report 2000-2001

MISSOURI OFFICE OF RURAL HEALTH

BIENNIAL REPORT TO THE GOVERNOR AND GENERAL ASSEMBLY

INTRODUCTION

The Missouri Office of Rural Health (MORH) was established by the 1990 General Assembly to "assume a leadership role in working or contracting with state and federal agencies, universities, private interest groups, communities, foundations, and local health centers to develop rural health initiatives and maximize the use of existing resources without duplicating existing effort." The authorizing legislation, 192.604 RSMo 2000, also requires the MORH to submit a biennial report of its activities and recommendations to the governor and members of the general assembly on or before November fifteenth of odd-numbered years. This report is submitted in compliance with that statute.

Missouri's Office of Rural Health (MORH) is located within the Center for Health Improvement, Missouri Department of Health and Senior Services. The MORH serves as a state resource to coordinate, plan, and advocate for the continued access to health care services in rural Missouri for the poor, the uninsured, the underinsured, the medically indigent, those requiring maternal and child care, and for the elderly. The MORH also analyzes and disseminates rural health information, and conducts outreach activities and applied research to improve the health of rural Missouri.

GOAL OF THE MISSOURI OFFICE OF RURAL HEALTH

To improve health outcomes in rural Missouri;

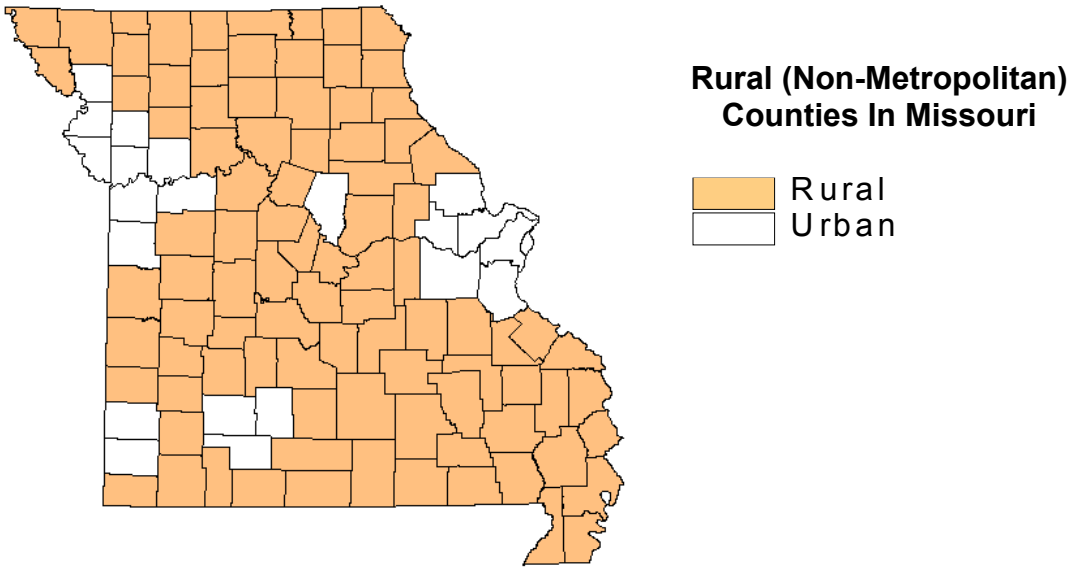
Strategies

- Develop rural integrated networks of health facilities, practitioners, and community leaders through partnerships and identification of opportunities for collaboration and cooperation;
- Provide data, information, and assistance to policy makers, health providers, health educators and health administrators to improve health systems and outcomes;
- Increase awareness of and advocacy for rural health needs and policy issues in Missouri;
- Be the liaison between academia, state government, professional associations and the general public.

CHALLENGES IN RURAL MISSOURI

Missouri is a state of many distinct geographic regions. These regions differ not only in terms of topography, but also culture, economy and resources. The variations include areas of the state considered part of the Mississippi Delta, Appalachian, eastern river towns, and western plains. Effective communication and cooperation with these varying communities is difficult. Although the issues may be similar, the solutions often require flexibility and creativity to develop and implement.

For purposes of this report, rural Missouri will be defined as those 95 counties in the state that are outside of the Metropolitan Statistical Areas established in 1999 by the U.S. Bureau of the Census. The data and information provided throughout this report will be defined according to this classification.



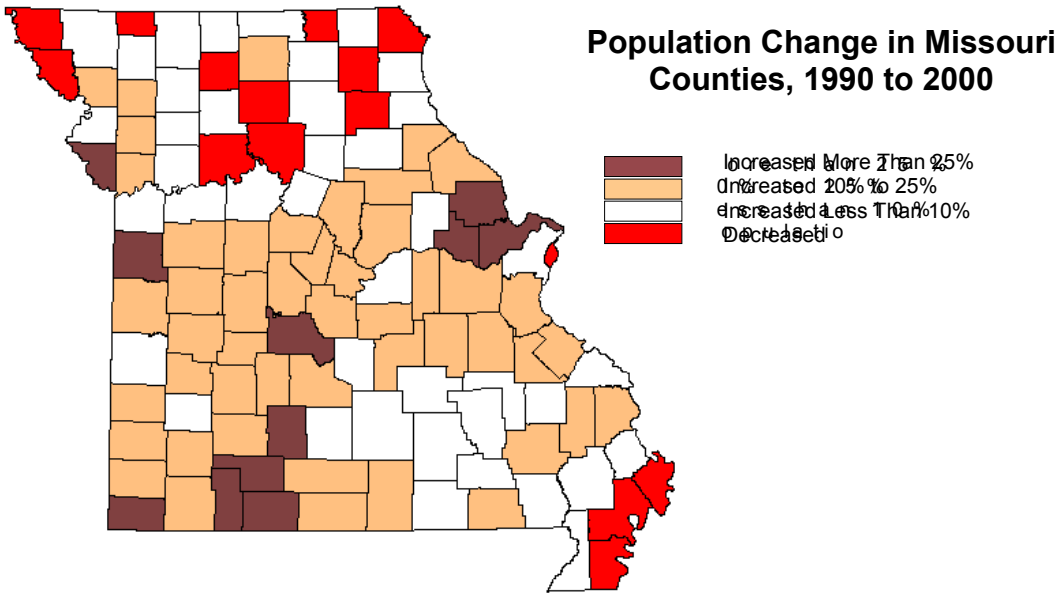
Changing Populations

Throughout the 1990's the Missouri population living outside the city limits of any town has been growing more rapidly than the population residing in towns and cities. New housing developments are appearing outside the city limits because construction sites are available and land costs are somewhat lower. A significant amount of this growth is occurring in rural areas that border urban areas. In fact, 42% of the total increase in the state's population from 1990 to 2000 occurred in rural areas.

There has been significant population growth in many rural counties, especially in the Ozarks and Branson areas, generated largely by people moving to Missouri from other states. Although rural areas in general gained population, there were 15 counties that lost population during the last decade. Of

those, only one (St. Louis City) was not a rural county. Those rural counties that lost population were largely north of the Missouri River, however there were losses in three Bootheel counties as well.

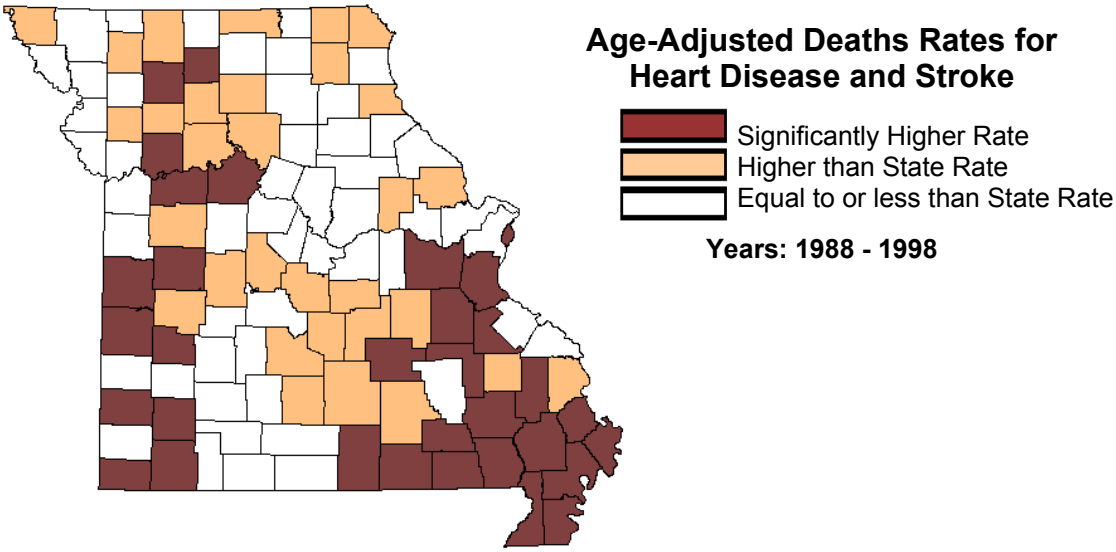
The fastest growing ethnic group in Missouri is the Hispanic population. Statewide there was a 92% increase in Hispanics between the censuses of 1990 and 2000. Much of this increase occurred in the Northeast and Southwest portions of the state, although there were notable gains across the state, including the Bootheel. There are indications that more minorities are moving into Missouri's rural counties, especially in the south central area of the state. The changes facing rural communities in terms of languages and culture are compounding problems around inadequate infrastructure and resources.



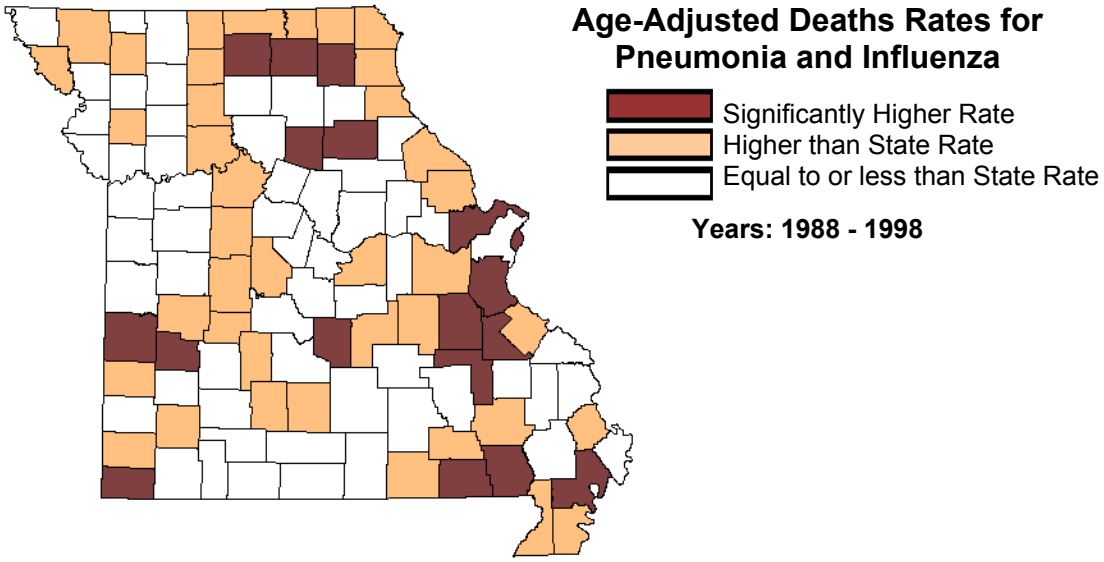
Health Status

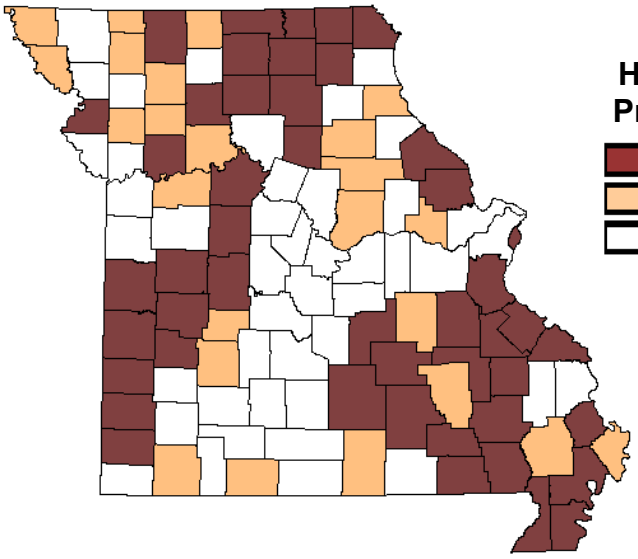
Health status indicators are very indicative of the differences between the rural areas of the state and the metropolitan areas. The rates for many health status indicators are significantly different from that of the state and the urban areas. Rural areas tend to have higher death rates and hospitalization rates for many of the leading health status indicators.

Heart disease and stroke are leading causes of death in Missouri and across the nation. However, rural areas in this state have higher death rates for these diseases than do the urban areas. Sixty percent (60%) of rural counties in Missouri have death rates that exceed the state rate.



A health status indicator that suggests not only a large elderly population but also a lack of access to primary and preventive care, is Pneumonia and Influenza Death and Hospitalization rates. These are health status indicators often associated with elderly populations. Annual influenza vaccination has been up to 90% effective in preventing influenza in young healthy adults and 30% to 40% effective in preventing illness among frail elderly persons. Increased access to and utilization of primary and preventive care could reduce both hospitalizations and deaths due to these diseases. Pneumonia and Influenza deaths and hospitalizations exceeded the state rate in over sixty-five percent (65%) of the rural counties. In the next two maps, the rankings of rural counties for these indicators reflect the impact the disease has on rural areas.



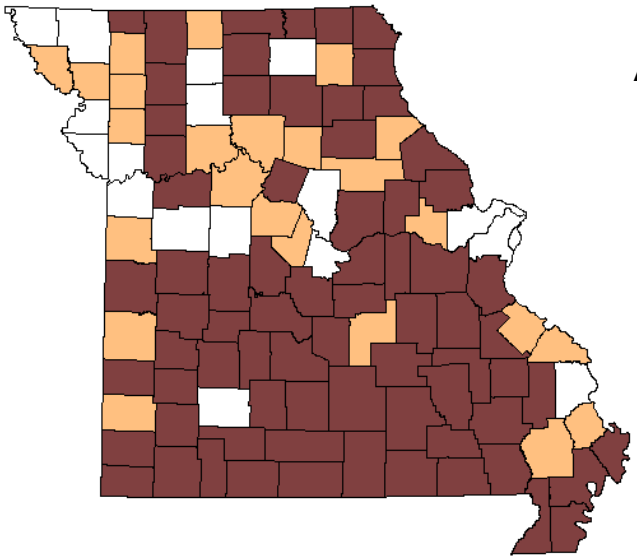


Hospitalization Rates for Pneumonia and Influenza

Significantly Higher Rate
Higher than State Rate
Equal to or less than State Rate

Years: 1995 - 1999

Between 1988 and 1998, the rates of motor vehicle deaths were higher in 89% of Missouri's rural counties than in urban counties or the state as a whole. This indicator is affected by the rural highway system, largely two lane roads burdened by large trucks, especially in those areas that agri-businesses have developed. These infrastructure issues coupled with the distances between incidents and medical facilities pose serious challenges in rural areas. Medicare has recently decreased reimbursements for EMS services, further stressing the service system. The death rates are reflected in the map below.



Age-Adjusted Death Rates for Motor Vehicle Accidents

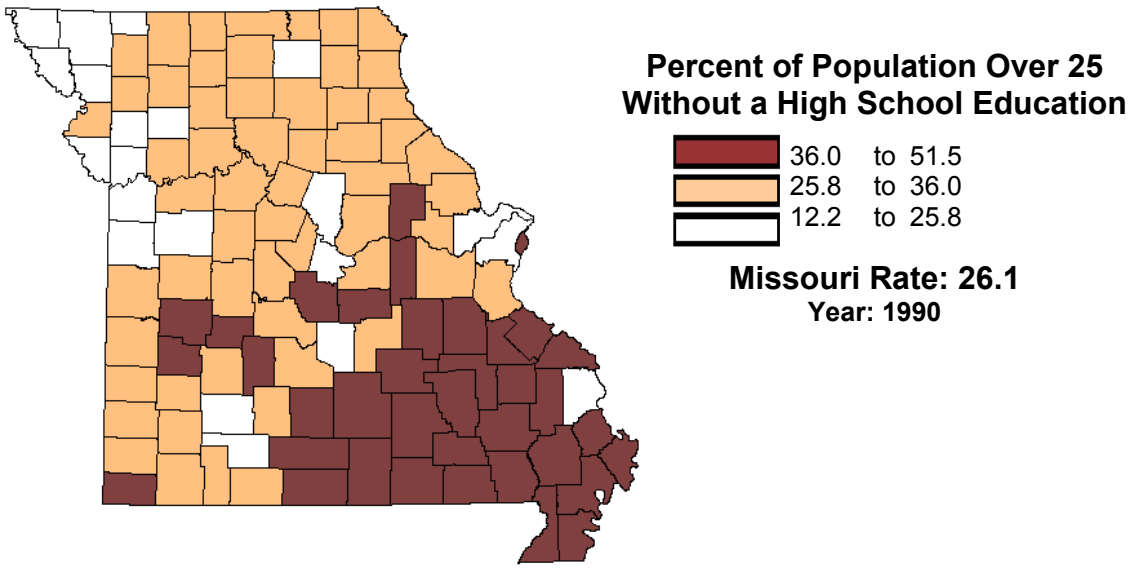
Significantly Higher Rate
Higher than State Rate
Equal to or less than State Rate

Years: 1988 - 1998

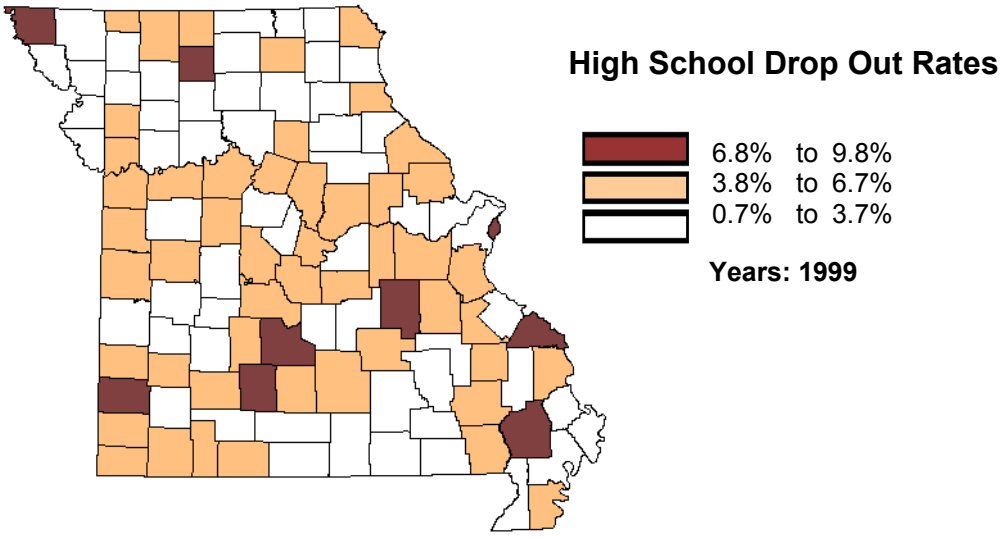
Education and Economics

Rural areas of the state and the nation historically have had lower income and education levels than urban areas. This is one unfortunate trend that continues to date. Although there may have been advances made in both these areas in the past decade, the variations between rural and urban areas persist.

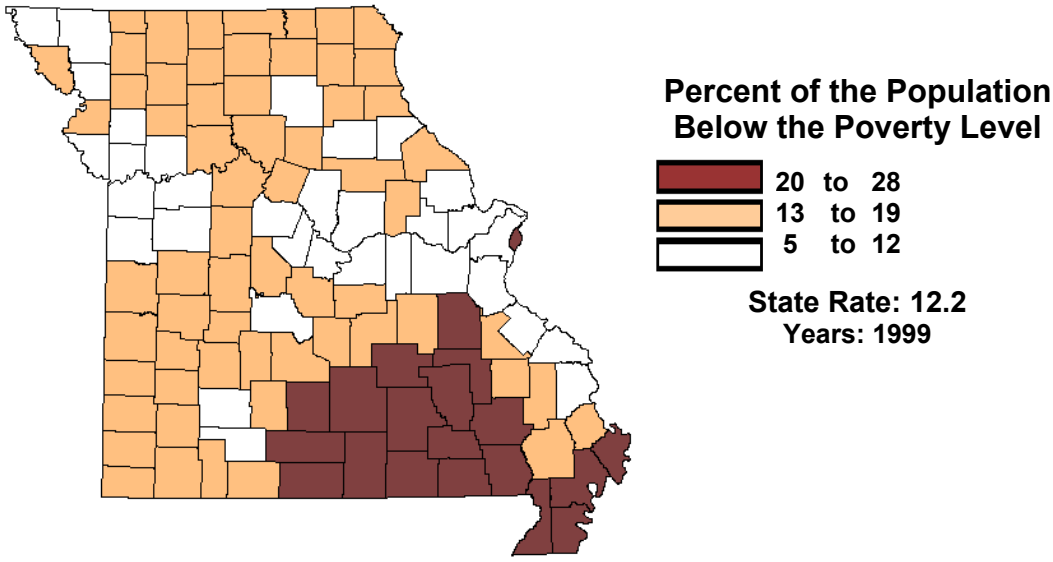
Educational attainment, or lack thereof, in rural areas is a continuing problem. The lack of a skilled and educated population is a barrier to many rural communities trying to recruit new, technically intensive industries. Education is also a variable associated with various healthy habits and avoidance of unhealthy ones. Examples of this are regular exercise and utilization of preventive medical care as opposed to use of alcohol or drugs, smoking or sedentary lifestyle. An indicator of the educational level in rural Missouri counties is the percent of the population over 25 years of age, without a high school diploma. Eighty-six percent (86%) of the rural Missouri counties rank higher than the state for the percent of the population over twenty-five without a high school education. The counties in the southeastern part of the state, with the exception of Cape Girardeau, are all in the highest need category for this indicator.



Compounding this problem is the high school dropout rate in rural areas. When we look at the dropout rates for the counties in 1999, we see the problems reflected in the previous map may be improving, but will likely persist for some time.



The impact of the previously mentioned data is best seen when looking at the poverty rates for rural Missouri counties. These data show that vast majority of rural counties, 83.2% have a higher percentage of their population living below poverty than does the state as a whole. These two factors, education and poverty, account for much of the health care and economic barriers in rural Missouri.



These factors pose challenges to improving health status in rural areas of the state. Following are some of the tools and strategies the MORH utilizes to address these issues.

ACTIONS AND PROGRAMMING

The MORH, when established by the General Assembly was given the mandate to "provide a central information and referral source and serve as the primary state resource in coordinating, planning and advocating for the continued access to rural health care services in Missouri for the poor, the uninsured, the underinsured, the medically indigent, maternity, newborn, child care and for the elderly." The main duties of the MORH as seen at that time consisted of education, monitoring and working with other agencies, promoting and encouraging the use of innovative health care services and advanced communications technology. The MORH has taken that responsibility very seriously, and in the past two years the capacity to meet and expand upon these directives has greatly improved.

The MORH has had the opportunity in the past two years to expand operations, largely due to increased resources, both financial and informational. The federal Office of Rural Health Policy and the Centers for Medicare and Medicaid Services have provided resources to the MORH to help improve health care delivery systems in rural Missouri. In addition, state sponsored programs, in collaboration with MORH have helped increase the health care professionals and facilities in these rural areas to enhance both health care access and the economic health of the communities involved. The results of those efforts are listed below.

Medicare Rural Hospital Flexibility Program

The newest tool the MORH has to address the needs of the small rural hospital is the Medicare Rural Hospital Flexibility Program (MRHFP). This program is designed to assist rural communities to maintain access to health care services through the development of Critical Access Hospitals (CAHs) and rural health networks. A CAH is an acute care facility that provides emergency, outpatient, and short stay inpatient services and is linked to full service hospitals and other providers in a rural health network. A CAH may maintain up to 25 beds to furnish both acute and skilled nursing level care, provided that no more than 15 of those beds are used for acute care at any one time. The advantage provided to facilities converting to a CAH is an enhanced (cost-based) reimbursement system for Medicare billings, including inpatient, outpatient services and EMS. This is extremely important as these areas have higher concentrations of Medicare-dependent, elderly populations.

Designation requirements as a CAH include:

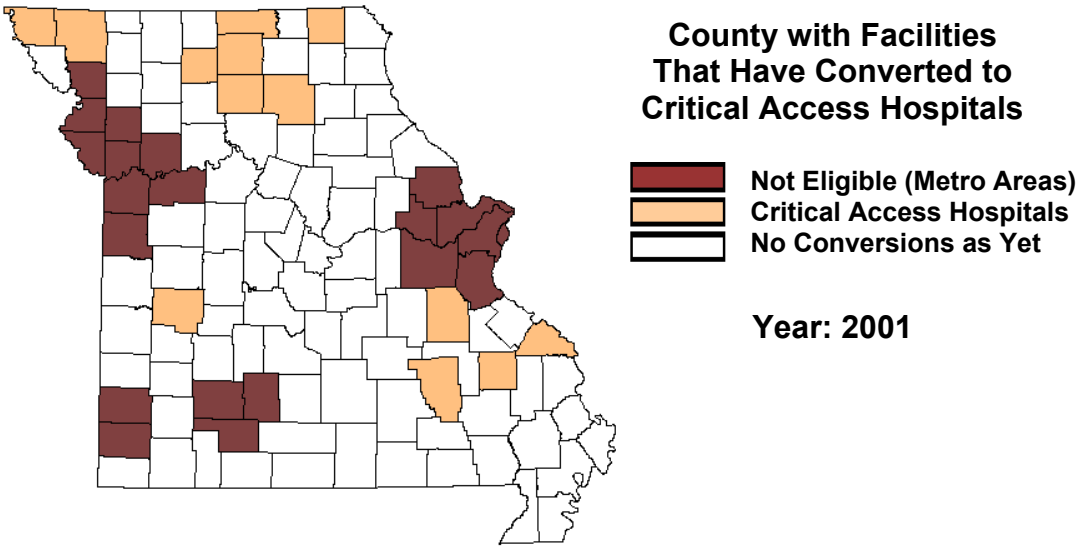
1. Being an affiliated hospital in a regional EMS network
2. Completing a Financial Feasibility Study of the impact of conversion to CAH status with historical utilization data
3. Agreeing to participate in a rural Network Development Planning Group, and
4. The facility must be located in at least **one** of the following:
   a. A designated Primary Care Health Provider Shortage Area (HPSA);
   b. A designated Medically Underserved Area (MUA);
   c. A county where the percentage of families with incomes less than 100% of the Federal poverty level is higher than the state average for families with incomes less than 100% of Federal poverty guidelines;
   d. A county with an unemployment rate that exceeds the most recent 12 month average Missouri unemployment rate, or
   e. A county with a percentage of population age 65 or older that exceeds the state's average.

The MORH has provided a wide range of technical assistance to the Missouri Hospital Association and rural communities around CAH conversion and rural network development. The office conducted 25 key informant interviews with a broad cross-section of rural health stakeholders to develop a common knowledge base about the CAH Program.

Through the Medicare Rural Hospital Flexibility Grant from the federal Office of Rural Health Policy, the MORH has:

- Assisted 13 hospitals to convert to CAHs in order to continue providing services;
- Provided funds to 6 rural hospitals to facilitate network development;
- Enhanced access to emergency, hospital and other essential health care services for rural Missouri residents;
- Stabilized hospital revenues, positively impacting local economies and enhancing recruitment and retention of health professionals in rural underserved areas;
- Created cost effective flexibility for rural hospitals to participate in the Missouri Medicare Rural Hospital Flexibility Program

Below is a map of the counties where hospitals have converted to CAHs.

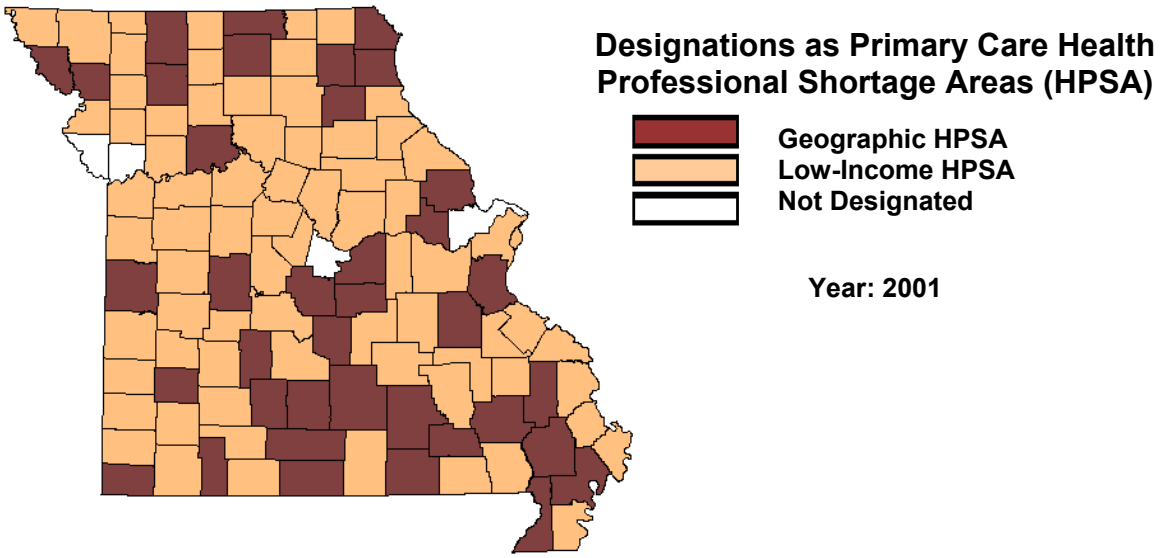


Recruitment and Retention

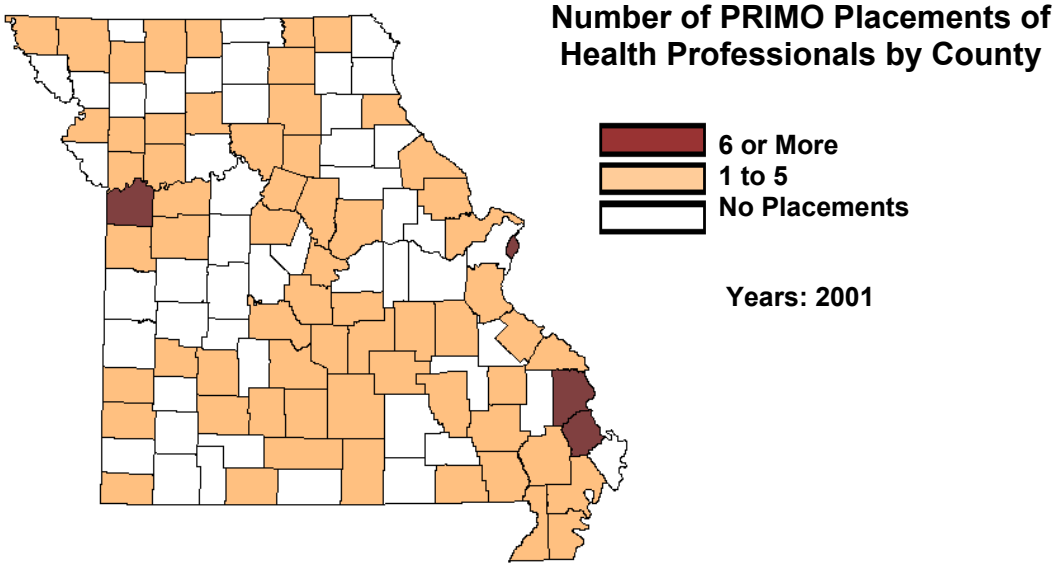
The MORH, in conjunction with other elements within the Health Systems Development Unit of the Center for Health Improvement, have applied several programs to improve health professional recruitment and retention in rural areas. While the focus of each of the programs is upon specific health professionals and areas of need, the MORH has the capacity to inform and facilitate resource allocations to enhance health care services in rural Missouri.

Access to primary health care services has been improving in rural Missouri. Although the number of federally designated Health Professional Shortage Areas (HPSA) has increased, the types of HPSAs

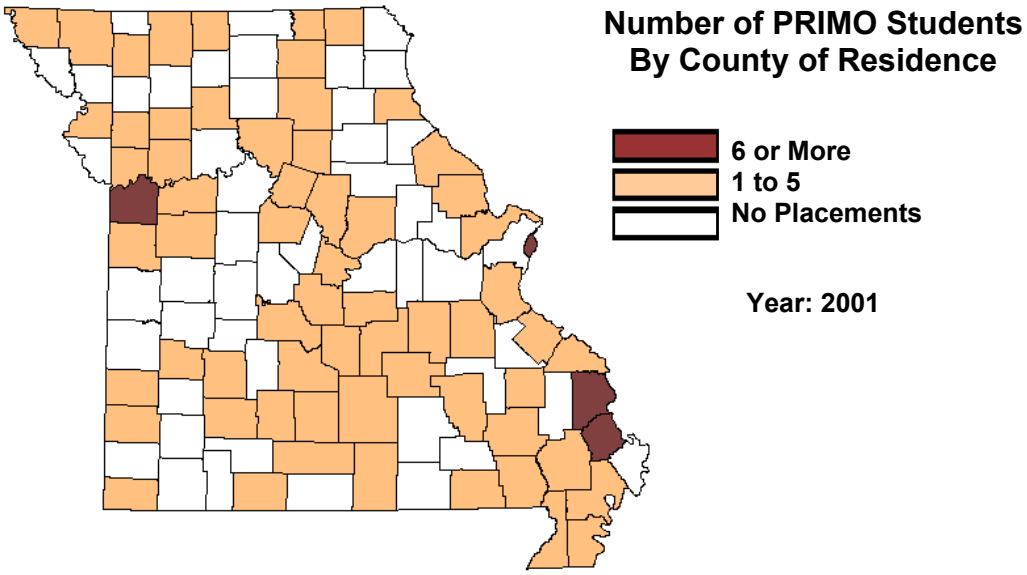
are changing. Geographic HPSAs are based on the ratio of primary care physicians to the general population, while Low-Income HPSAs are based on the amount of care provided to Medicaid and uninsured patients. In the past ten years the number of Geographic HPSAs has decreased in rural Missouri by over 17%, even with the corresponding population increases. Following is the most current Primary Care HPSA map that shows the distribution of these two types of HPSAs in Missouri.



In cooperation with the Primary Care Resource Initiative for Missouri (PRIMO), the MORH has been involved in the recruitment and placement of health professionals for underserved rural Missouri communities. Through the PRIMO initiative, there have been 218 health care professionals placed in underserved areas of the state. Fifty-two percent of those (115) have been placed in rural underserved areas. Following is a map showing the placement of health professionals by PRIMO and the MORH.

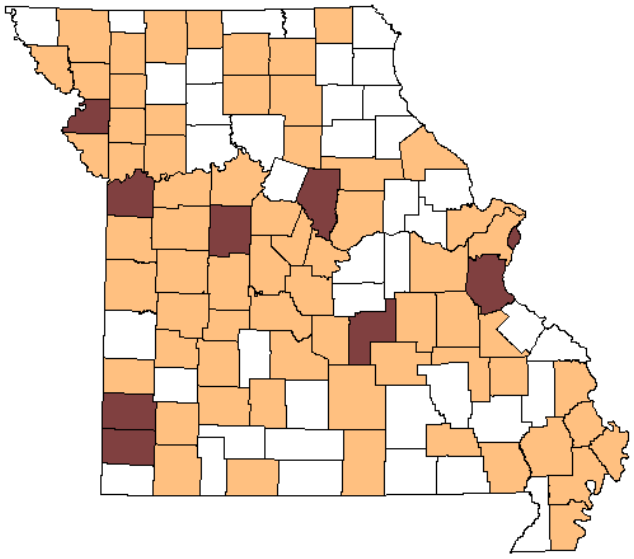


There have been three types of professionals placed through the program to date; primary care physicians (113), primary care advanced practice nurses (67) and Bachelor of Science nurses (48). PRIMO Scholars are selected according to residence, to identify those students from rural and underserved areas. For the current (2001) academic year, 59% percent of the PRIMO supported students are from rural areas. Of those students from rural, underserved areas, 73% (70) are pursuing medical careers and one is attending dental school.



One of the health professional shortage issues facing rural Missouri is the lack of nurses. Although the total number of nurses working in the state has increased each year, the need for nurses in rural facilities has exceeded the supply of professionals willing to work in those counties. In cooperation with the Missouri Professional and Practical Nursing Loan Program the MORH has worked to increase the number of nursing professionals in rural Missouri.

Over half (51%) of the nurses placed through the Missouri Professional and Practical Nursing Student Loan Program have been in rural underserved areas of Missouri. Of the 247 participants, 127 are now practicing in rural Missouri. Currently there are an additional 87 nurse loan recipients who are still in school. If current trends continue at least half of these nurses will be practicing in rural communities within the next two years.



Additional placements of primary care physicians, advanced practice nurses and other professional nurses have been implemented through a variety of programs. MORH, in conjunction with the Health Professional Loan Repayment Program, has placed one to two physicians a year in underserved areas in the state. Recent increases in the program have allowed MORH to facilitate placements in additional rural communities. The data on these efforts will be available in state fiscal year 2002. An additional 16 primary care physicians are placed each year through the state's J-1 Visa Waiver program. The MORH has assisted in the selection of participants for this program that allows foreign medical graduates to practice in underserved areas of the state. In state fiscal year 2001, 50% of the J-1 Visa waivers were for physicians to practice in rural underserved counties in Missouri.

MORH also works in collaboration with several external partners to increase the recruitment and retention of health professionals. These external partners include the Missouri Primary Care Association, the Missouri Hospital Association and the Area Health Education Centers.

Information Clearinghouse

The MORH continues to collect and disseminate information on rural policy issues, health programs, and funding opportunities. The MORH provides information to rural stakeholders through personal contact, community meetings and statewide organizational conferences and meetings. Recent reorganizations within the Center for Health Improvement, DHSS, have increased access of the MORH to community organizations, i.e., CHART groups or Community Partnerships, statewide. The informational resources available to the MORH are being made more readily available to communities statewide through the center's field staff and the department's Internet site: www.dhss.state.mo.us.

Technical Assistance

The MORH continues to provide technical assistance to communities in accessing resources to improve health infrastructure. Resources from federal sources include the Medicare Rural Hospital

Flexibility Program, Rural Health Outreach and Network Development grants, Community Health Center Grants, Rural Health Clinic Certifications, and Telehealth Grants. These resources are available nationwide, and the MORH assists communities in Missouri to develop successful applications for these highly competitive programs.

MORH also provides technical assistance to communities on accessing state programs such as the PRIMO initiative and the provider incentive programs at both state and federal levels.

Leadership and Policy Development

The MORH has taken leadership roles in several statewide committees and advisory bodies, to provide technical assistance in rural health policy development. The MORH has taken a leadership role in implementing the Medicare Rural Hospital Flexibility Program. The MORH sits on the Missouri Rural Opportunities Advisory Council and the Advisory Committee on Childhood Immunizations. The MORH has spearheaded the formation of an EMS Advisory Council to explore and make recommendations for EMS enhancement and networking in rural CAH communities.

NEXT STEPS

In the coming months the MORH will focus on five areas: Planning and Evaluation, Improving Quality of Care, CAH Development, EMS Enhancement, and Strengthening Rural Economies.

Planning and Evaluation

The MORH is in the process of developing a comprehensive Missouri Rural Health Operational Plan. The office has contracted with the Ozarks Public Health Institute of Southwest Missouri State University (SMSU), in conjunction with the Center for Research and Service, to conduct an exploratory study to identify determinants of rural health. This study will consist of multiple methods of investigation; specifically secondary data analyses, key informant interviews and resident phone surveys. The goal of the study is to provide MORH and DHSS with variables and conditions in rural areas that impact health status. With this information, MORH will then implement a process to develop an operational plan to affect the identified variables.

This operational plan will allow MORH to address more areas of health service delivery and to produce products of value for all Missouri communities.

Improving Health Care Quality

In the current state fiscal year, MORH has contracted with the Missouri Peer Review Organization (PRO) to implement the Health Care Quality Improvement Program (HCQIP) in Critical Access Hospitals. This program is a new approach to improving the health of Medicare beneficiaries that involves analyzing and changing the patterns of care to remedy widespread shortcomings in the health

care delivery system. HCQIP activities focus on six national clinical areas: acute myocardial infarction, breast cancer, diabetes, heart failure, pneumonia and influenza, and strokes. These priorities were chosen based on their public health importance and the feasibility of measuring and improving quality. The process compares clinical practice patterns to a standardized set of quality indicators. Data is furnished to providers about the quality of their clinical treatment and how they compare with statewide patterns. Prior to this contract the HCQIP was not available to CAHs.

The MORH is also exploring the possibility of improving access to state and regional clinical networks sponsored by the Missouri Primary Care Association and the National Health Service Corps. With access to these networks, rural providers will have opportunities to improve health outcomes through clinical quality guidelines. Current activities of these networks are focusing on Diabetes and Heart Disease, two diseases with significant impact in rural areas.

CAH Development

The MORH will continue to provide technical assistance, quality improvement services and financial support to rural health care delivery systems converting to Critical Access Hospitals. Funds continue to be available to rural facilities to enhance services covered under CAH provisions. The quality of care components will serve to not only improve health outcomes in rural areas, but to restore confidence of rural populations in their local health care systems.

EMS Enhancement

As the CAHs and their communities address some of the first issues around financial stability and necessary health care services, the opportunities will develop to improve Emergency Medical Systems. The MORH, along with the Missouri EMS and Hospital Associations will coordinate efforts to identify barriers and develop incentives to improve services, expand networks and enhance quality of care. Given the impact these systems have on rural health status, e.g., Motor Vehicle Death Rates, this is an area MORH is anxious to begin to address.

Strengthening Rural Economies

The MORH has identified and is ready to implement tools to quantify the economic impact health care systems have on rural communities. This tool can be used to address specific areas of concern in communities trying to address health care access issues. The tool has the capacity to provide economic impact data, based on various scenarios, that allows communities to determine systems they can implement and maintain.

The MORH will provide this tool to CHART, Community Partnerships and other DHSS community-based efforts to build plans for technical and financial assistance to assure completion of the individual projects.

CONCLUSION

The Missouri Office of Rural Health has identified many of the leading health care issues confronting our rural communities and health care delivery systems. Unfortunately, these are not issues that can be resolved through an individual initiative, program or agency. The MORH will create new and strengthen existing partnerships to revitalize cooperative efforts, expand our knowledge base, and increase intervention effectiveness. Models that work or have strong supporting research will be studied for applicability in Missouri. In addition new research activities and rural health plan development will be vigorously pursued to develop and where possible implement, effective interventions.

The MORH is appreciative of the continued support of the Executive and Legislative Branches of the Missouri State Government. This support will allow the MORH to continue to provide technical assistance, information and financial resources to rural communities to develop and expand health care delivery systems.